

REMARKS

Claims 1-14 are pending in this application. By this Amendment, claims 1 and 14 are amended to recite that the speed of the feeding means, before and after being changed, is above zero. Support for these amendments can be found, for example, in Fig. 4a and at page 11, line 30 to page 12, line 17 of the specification as filed. Claim 1 is further amended to recite that one way of changing the feeding speed is by use of the preset value $((\Delta val_m / \Delta t)_{max})$. Support for this amendment can be found, for example, in Fig. 4b; page 11, lines 18-24; and page 14, lines 8-14 of the specification as filed. Claim 7 is amended for clarity. No new matter is added.

Entry of the amendments is proper under 37 CFR §1.116 because the amendments: (a) place the application in condition for allowance (for the reasons discussed herein); (b) do not raise any new issue requiring further search and/or consideration because the amendments further clarify the claims; (c) do not present any additional claims; and (d) place the application in better form for appeal, should an appeal be necessary. The Examiner is reminded that all subject matter the Examiner reasonably anticipates might be incorporated into the claims must be searched (MPEP §904.03). Because changing from a non-zero feeding speed to another non-zero feeding speed is clearly disclosed (for example, at page 11, line 30 to page 12, line 17 of the specification as filed) and would reasonably be incorporated into the claims in response to a rejection over a reference teaching a zero "feeding speed," this feature should already have been searched. Thus, entry of the amendments is respectfully requested.

I. The Claims Are Definite

The Office Action rejects claims 1-14 under 35 U.S.C. §112, second paragraph, as allegedly being indefinite. Applicants respectfully traverse the rejection.

The Office Action states that the recitations of the upper and lower preset values should be moved in the claims to a section before the alternative language "in one of the following ways". However, the upper and lower preset values are used in only one of the alternative ways. Thus, by this Amendment, claims 1 and 14 are amended to more clearly define the two alternative ways. The first way, identified as (a), utilizes the upper and lower preset values and the second way, identified as (b), uses the preset value $((\Delta \text{val}_m / \Delta t)_{\max})$.

For the foregoing reasons, Applicants request withdrawal of the rejection.

II. The Claims Are Patentable Over The Applied References

The Office Action (1) rejects claims 1-9 and 11-14 under 35 U.S.C. §102(b) over U.S. Patent No. 5,248,042 to Kuhmonen; and (2) rejects claim 10 under 35 U.S.C. §103(a) over Kuhmonen in view of U.S. Patent No. 4,665,772 to Greene. Applicants respectfully traverse the rejections.

Regarding independent claim 1, Kuhmonen fails to disclose (1) "controlling the feeding speed of the feeding means on the basis of the measurement by automatic control in such a manner that the feeding speed, which is above zero, is changed to a different feeding speed, which is above zero"; (2) "lowering the speed of the feeding means without stopping the feeding means when the measurement value (val_m) passes one of the preset values"; and (3) "changing the speed of the feeding means without stopping the feeding means when the speed of change of the measurement value (val_m) of the variable exceeds the preset value $((\Delta \text{val}_m / \Delta t)_{\max})$ " (emphasis added). Regarding independent claim 14, Kuhmonen fails to disclose (4) "said controller is connected to said actuator through a data transmission line and arranged to give a control command to said actuator in response to the measurement value (val_m) received from the sensor to change the feeding speed, which is above zero, to a different feeding speed, which is above zero"; (5) "an upper preset value (val_{\max}) and a lower preset value (val_{\min}) for the measurement value (val_m) are programmable and changeable in

the controller and the controller is arranged to give a speed reducing control command, which does not stop the feeding means, to the feeding means when the measurement value (val_m) passes one of the preset values (val_{max} , val_{min} "); and (6) "the controller is arranged to give a speed changing control command, which does not stop the feeding means, to the feeding means when the speed of change exceeds the preset value $((\Delta val_m / \Delta t)_{max})$ " (emphasis added).

Kuhmonen discloses a screening method and screening apparatus 10 that comprises a pressure sensor which indicates the resistance to turning of the drum 20 and a control system which temporarily stops the feeding conveyor 18 if the sensor detects in the hydraulic system that there is excess pressure (col. 3, lines 58-64 and col. 5, lines 54-60). At col. 3, lines 58-64, Kuhmonen states "Similarly, feedback control mean[s] 46 temporarily stop[s] the feeding conveyor 18 when resistance to turning of the drum using the drum-powering hydraulic motor 42 indicates that the drum is temporarily overloaded. Upon resistance to turning dropping below a selected threshold level, the feeding conveyor 18 resumes operation" (emphasis added). Kuhmonen does not disclose a preset value defined as $((\Delta val_m / \Delta t)_{max})$.

According to the Office Action, in the Response to Arguments section, Kuhmonen discloses that the feeding conveyor 18 is stopped when resistance of the drum to turning indicates that the drum is overloaded, citing "c3 lines 57+". The Office Action alleges that this resistance value corresponds to the claimed upper preset value. The Office Action alleges that Kuhmonen discloses that when the resistance drops below a selected threshold value, the feeding conveyor is started and alleges that this corresponds to the claimed lower preset value. Applicants note that the selected threshold is the same upper limit as when the resistance to the drum indicates the drum is overloaded because if the resistance is above this selected threshold, the feeding conveyor 18 remains stopped. Because the feeding conveyor 18 is only restarted once the resistance falls below the selected threshold, the selected threshold must be an upper limit.

In view of the foregoing, Kuhmonen fails to disclose features (1)-(6) quoted above because (1) Kuhmonen only discloses an upper limit, thus does not disclose alternative (a) of the claims, and does not disclose any preset limit of $((\Delta v_{lm}/\Delta t)_{max})$, thus not disclosing alternative (b) of the claims; and (2), because Kuhmonen discloses that the feeding conveyor 18 is stopped when resistance to turning of the drum indicates that the drum is temporarily overloaded, Kuhmonen does not disclose changing the feeding means speed from one non-zero speed to a speed which is not zero, as claimed.

Greene, cited as allegedly disclosing the sensing of hydraulic fluid temperature, does not cure the deficiencies of Kuhmonen.

For the foregoing reasons, Applicants request withdrawal of the rejections.

III. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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